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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,600	12/14/2001	Robert Frischholz	BOE01 003	6899

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WASHINGTON, DC 20006

EXAMINER

LAVIN, CHRISTOPHER L

ART UNIT PAPER NUMBER

2621

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/889,600

Applicant(s)

FRISCHHOLZ, ROBERT

Examiner

Christopher L Lavin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 29 is/are pending in the application.
- 4a) Of the above claim(s) 7 - 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 4, 21 - 29 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Objections***

2. Claims 5, 6, 19 and 20 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 5, 6, 19, and 20 have not been further treated on the merits.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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4. Claims 1, 23, 24, 30, and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Wagner (6,101,264).

5. In regards to claim 1, Wagner discloses in lines 25 – 33 in column 4 a method of identification of an individual that is based on movement information. As movements are classified (paragraph starting at column 6, line 1) a controllable motion needs to be used so that a person can be identified. In order for the method disclosed by Wagner to work, the person must be present. This acts as a way of verifying that a person is present.

6. In regards to claim 23, Wagner discloses in lines 25 – 28 in column 4 that the identification of an individual is determined after detecting motion.

7. In regards to claim 24, as shown in the method claim 1 and further shown in figure 1 Wagner discloses a system for securing forgery in a biometrical identification of persons. Figure 1 shows a detector means (10), a processing means (1) and a directing means (12).

8. In regards to claim 30, Wagner discloses in lines 25 – 33 in column 4 that “one of the ‘stored individuals’ is identified with high reliability by means of comparative values”.

9. In regards to claim 31, Wagner discloses in lines 25 – 33 in column 4 that “one of the ‘stored individuals’ is identified with high reliability by means of comparative values”.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 2, 3, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner in view of Horwitz (5,963,300).

13. In regards to claim 2, Wagner discloses a method of identification of an individual that is based on movement information. Wagner however does not disclose that the line of sight of a person is controlled and the position of the eyes is detected.

14. Horwitz discloses in the paragraph starting at column 3, line 43 that a strabismus measurement of the eye(s) is computed by measuring "the gaze (look) angle of the eye(s) and compares it to the respective angles of a target at which the eye(s) is tasked to look". In order to compute such an angle, the eyes must be detected.

15. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to detect the line of sight before attempting to identify the person with the method disclosed by Wagner. This allows the system to determine if a person is actually present for identification by the method disclosed by Wagner.

16. In regards to claim 3, Horwitz discloses in the paragraph starting at column 3, line 43 that the strabismometer "compares [the line of site] to respective angles of a

target at which the eye(s) is tasked to look". This would detect whether the person's line of sight is directed to a mark (target).

17. In regards to claim 25, Wagner discloses a system for identification of an individual that is based on movement information. Wagner however does not disclose that the line of sight of a person is controlled and the position of the eyes is detected.

18. Horwitz discloses in the paragraph starting at column 3, line 43 that a strabismus measurement of the eye(s) is computed by measuring "the gaze (look) angle of the eye(s) and compares it to the respective angles of a target at which the eye(s) is tasked to look". Horwitz implies that the target can be moved around, for the system to be able to determine correct line of sight the target must be placed precisely, which requires some sort of high resolution monitor for displaying the target.

19. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to detect the line of sight before attempting to identify the person with the method disclosed by Wagner. This allows the system to determine if a person is actually present for identification by the method disclosed by Wagner.

20. Claims 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner in view of Trew (5,561,718).

21. In regards to claim 21, Wagner a method where a facial image is taken (Figure 1, item 10) and digitized. However Wagner does not use eye position for personal identification.

22. Trew discloses in the paragraph starting at column 4, line 62 that the eyes are detected. Trew the discloses in lines 9 – 14 in column 5 that a feature vector of a face,

including eye position is created and then compared to stored feature vectors to identify a person. This is equivalent to comparing the eye position to the rated eye position.

23. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to use eye position in feature recognition in the person identification method disclosed by Wagner. Wagner focuses on movements for detection, but by including facial features as well the method disclosed by Wagner can more accurately identify an individual.

24. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner in view of Horwitz as applied to claim 25 above, and further in view of Trew.

25. In regards to claim 26, Wagner in view of Horwitz a system where a facial image is taken (Figure 1, item 10) and digitized. As shown in claim 25 Wagner in view of Horwitz discloses a directing means for controlling the person's line of sight. However Wagner in view of Horwitz does not use eye position for personal identification.

26. Trew discloses in the paragraph starting at column 4, line 62 that the eyes are detected. Trew the discloses in lines 9 – 14 in column 5 that a feature vector of a face, including eye position is created and then compared to stored feature vectors to identify a person. This is equivalent to comparing the eye position to the rated eye position.

27. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to use eye position in feature recognition in the person identification system disclosed by Wagner. Wagner focuses on movements for detection, but by including facial features as well the system disclosed by Wagner can more accurately identify an individual.

28. Claims 4/1, 22, 27, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner in view of Faulkner (5,483,601).

29. In regards to claim 4/1, Wagner discloses a method of identification of an individual that is based on movement information. Wagner however does not disclose identifying an individual with biometrical data of the hands.

30. Faulkner discloses in the paragraph starting at column 7, line 18 a method of identifying an individual with biometrical data of the hands. Figure 11 shows a detection device (70) to control the hand movements of a person and detect the hand position. In the next paragraph Faulkner discloses "using the person's hand, in this case, to verify that he is the enrolled person that he claims to be".

31. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to use the hand recognition method disclosed by Faulkner with the method disclosed by Wagner to determine a person's identity. By adding in the hand recognition method disclosed by Faulkner Wagner's method will have more redundancy, checking more parameters and allowing for a more accurate and confident identification.

32. In regards to claim 22, Wagner discloses a method of identification of an individual that is based on movement information. Wagner however does not disclose identifying an individual with biometrical data of the hands.

33. Faulkner discloses in step a. of column 7 that a picture of a handprint is taken. Step b. discloses the step of digitizing the image. As shown in figure 10, Faulkner controls the location of the hand by the design of the digitalization plate (70), which has



pegs (71, 62, 73). Step c. in column 8 discloses the step of analyzing the image and compared with previous data to produce hand feature data. In step f. of column 9 Faulkner discloses comparing the hand data with a digital reference image.

34. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention use the hand recognition method disclosed by Faulkner with the method disclosed by Wagner to determine a person's identity. By adding in the hand recognition method disclosed by Faulkner Wagner's method will have more redundancy, checking more parameters and allowing for a more accurate and confident identification.

35. In regards to claims 27 and 28, Wagner discloses a system of identification of an individual that is based on movement information. Wagner however does not disclose identifying an individual with biometrical data of the hands.

36. Faulkner discloses in step a. of column 7 that a picture of a handprint is taken. Step b. discloses the step of digitizing the image. As shown in figure 10, Faulkner directs the location of the hand by the design of the digitalization tray (70), which has pegs (71, 62, 73). This is the directing means, which is part of the larger unit that contains the imaging (detecting) means (11). Step c. in column 8 discloses the step of analyzing the image and compared with previous data to produce hand feature data. In step f. of column 9 Faulkner discloses comparing the hand data with a digital reference image.

37. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention use the hand recognition system disclosed by Faulkner with the

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system disclosed by Wagner to determine a person's identity. By adding in the hand recognition method disclosed by Faulkner Wagner's method will have more redundancy, checking more parameters and allowing for a more accurate and confident identification.

38. Claims 4/2 and 4/3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner in view of Horwitz as applied to claims 2 and 3 respectively, and further in view of Faulkner.

39. In regards to claims 4/2 and 4/3, Wagner in view of Horwitz discloses a method of identification of an individual that is based on movement information. Wagner in view of Horwitz however does not disclose identifying an individual with biometrical data of the hands.

40. Faulkner discloses in the paragraph starting at column 7, line 18 a method of identifying an individual with biometrical data of the hands. Figure 11 shows a detection device (70) that controls the hand movements of a person and detect the hand position. In the next paragraph Faulkner discloses "using the person's hand, in this case, to verify that he is the enrolled person that he claims to be".

41. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to use the hand recognition method disclosed by Faulkner with the method disclosed by Wagner to determine a person's identity. By adding in the hand recognition method disclosed by Faulkner Wagner's method will have more redundancy, checking more parameters and allowing for a more accurate and confident identification.

42. In regards to claim 29, as shown in the rejection of claim 28 Wagner in view of Faulkner discloses a detector comprising of a digitizing tray. That tray was shown to control the hand movements of a person, forcing the hand into a rated position. An image of the finger is then taken. This image is a fingerprint. As the detector only allows the fingers to be in rated positions the detector will only detect the finger when it is in a rated position.

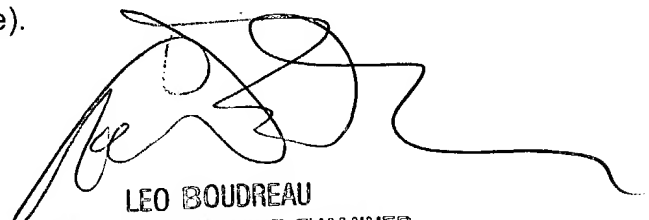
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher L Lavin whose telephone number is 703-306-4220. The examiner can normally be reached on M - F (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Boudreau can be reached on (703) 305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CLL



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